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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/593,701	09/19/2006	Wai-Kuen Lui	865-B-PCT-US	3093

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EXAMINER

MAI, HAO D

ART UNIT	PAPER NUMBER
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3732

MAIL DATE	DELIVERY MODE
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01/07/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/593,701	Applicant(s) LUI ET AL.	
	Examiner HAO D. MAI	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22 and 24-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22, 24-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed 10/10/2008 in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09/29/2008 has been entered.

Claim Objections

2. Claim 24 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 24 depends on cancelled claim 23. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 22, 24-25, 27, 31-33, 35, and 37-38, are rejected under 35 U.S.C. 102(b) as being anticipated by Maloney (3,533,420)**

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Regarding claim 22, Maloney discloses a dental hygiene apparatus comprising: an elongated handling means 10 having a longitudinal axis; a teeth-cleaning means 12 comprising arms 22, 24, that secure one or more lengths of interdental material 30, wherein the interdental material is oriented longitudinally as related to the longitudinal axis of the handling means (Figs. 1-4). In a second embodiment of Figures 5-6, Maloney further discloses a flexible means (hinge 64/66) between the teeth-cleaning means and the handling means, wherein the flexible means is integral with the teeth-cleaning means and the flexible means 66 is pliable so that the interdental material can be brought laterally to either side of the longitudinal axis of the handling means to have an about 90 degrees angle between the interdental material and the longitudinal axis of the handling means (column 2 lines 64-75).

As to claims 24-25, and 27, note that the interdental material 30 is dental floss, the elongated handling means comprises various tapered portions at one end, and the teeth-cleaning means is capable of adhering to a new position after flex adjustment at the flexible means (column 2 line 74).

As to claims 31-33, and 38, Maloney discloses all the claimed elements as detailed above. As to claims 35, note that the whole handle, including the tapered end, is pliable at hinge 64/66 so that it can be bent about 90 degrees to the right or to the left. As to claim 37, the apparatus as disclosed by Maloney is made of plastic which is a thermoplastic resin.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negated by the manner in which the invention was made.

6. Claims 28-30 and 39-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maloney in view of Gordon (5,184,719).

Maloney discloses the invention substantially as claimed. However, Maloney fails to disclose a guarding means for preventing a user from using said apparatus. Gordon discloses a dental hygiene apparatus having a guarding means (package 21) capable of preventing a user from using the teeth-cleaning means/toothbrush 12 (Fig. 1). Package 21 comprises a locking device (the perimeter seal) that fits into a mating recess on the teeth-cleaning means; note the mating recess being the tapering recessed neck part of toothbrush head 12 where package's perimeter seal wraps around (Fig. 1). The guarding means/package 21 comprise a thin material that securely covers the teeth-cleaning means 12 and cannot be removed without destruction of said material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to include such package as a guarding means to Maloney in order to prevent tampering and maintain the device clean and free of contamination prior to usage.

7. Claim 26, 34, and 36, are rejected under 35 U.S.C. 103(a) as being unpatentable Maloney in view of Ding et al. (2004/0134512 A1).

Maloney discloses the invention substantially as claimed. However, Maloney fails to disclose the chisel-shaped or pointed tapered end portion (claims 26, 34) and the ridges or grooves on the elongated handle (claim 36). Ding et al. disclose a dental hygiene apparatus having a chisel-shaped or pointed tapered end (near reference numeral 2 in Figures 10-11); and ridges 2a along the handle (Figures 7-8). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Maloney by including a chisel-shaped or pointed tapered end at one end of the handle so that the pointed end can be used to

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scrape out hard plaque on the teeth as explicitly taught by Ding et al. Furthermore, it would also have been obvious to one having ordinary skill in the art at the time the invention was made to modify Maloney by including ridges and/or grooves on the elongated handle in order to establish an easy and secure grip of the handle, preventing slippage of the apparatus from the user's grasp as explicitly taught by Ding et al.

Response to Arguments

8. Applicant's arguments with respect to the rejected claims have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HAO D. MAI whose telephone number is (571)270-3002. The examiner can normally be reached on Monday-Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on (571) 272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

10. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you

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would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hao D Mai/
Examiner, Art Unit 3732

/Cris L. Rodriguez/
Supervisory Patent Examiner, Art Unit 3732